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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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GRAY CARY WARE & FREIDENRICH LLP 2000 UNIVERSITY AVENUE E. PALO ALTO, CA 94303-2248			JEAN GILLES, JUDE	
			ART UNIT	PAPER NUMBER
			2143	
DATE MAILED: 12/30/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application N .</b> 10/001,514	<b>Applicant(s)</b> SALEM ET AL.	
	<b>Examiner</b> Jude J Jean-Gilles	<b>Art Unit</b> 2143	

**-- Th MAILING DATE of this c mmunicati n appears n the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



### **DETAILED ACTION**

This office action is responsive to communication filed on 10/31/2001.

#### ***Drawings***

1. New corrected drawings are required in this application because handwritten labels are confusing in all the drawing sheets. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28, recites the phrase "*the documents presently stored*" in line 3. There is no antecedent basis for this limitation in the claim.

Claim 28, recites the phrase "*the documents presently stored*" in line 4. There is no antecedent basis for this limitation in the claim.

Claim 28, recites the phrase "*the remote computing device*" in line 4. There is no antecedent basis for this limitation in the claim.

The above noticed problems are just exemplary. Correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, and 15 are rejected under 35 U.S.C. 102(e) as being unpatentable by Crawford (U.S. Patent No. 5,901,228).

**Regarding claim 1:** Crawford discloses a data storage and retrieval system, comprising: a hosting environment having one or more different applications running on one or more servers at the hosting environment that allows a remote computing device to access data stored at the hosting environment immaterial of whether a particular application for accessing the data is installed on the remote computing device (*fig. 4; column 14, lines 24-42; column 16, lines 49-56*).

**Regarding claim 15:** Crawford discloses the data storage and retrieval system of claim 1, wherein the computing device is a personal computer (*fig. 1, items 50, column 15, lines 64-67*).

6. Claims 20, and 23 are rejected under 35 U.S.C. 102(e) as being unpatentable by Bowman-Amuah (U.S. Patent No. 6,615,253 B1).

**Regarding claim 20:** Bowman-Amuah discloses a data storage and retrieval system, comprising: a hosting environment having one or more different applications running on one or more servers at the hosting environment, wherein data from a remote computing device is stored at the hosting environment for subsequent retrieval of the data, such that synchronization of the data between the remote computing device and the hosting environment occurs at frequent intervals (*column 54, lines 18-25; column 121, lines 10-24*).

**Regarding claim 23:** Bowman-Amuah discloses the data storage and retrieval system of claim 20, wherein the hosting environment is accessible directly via the Internet using a web browser application (*column 249, lines 27-35*).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-10, 12-14, 17-19, 21-24, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford (U.S. Patent No. 5,901,228) in view of Bowman-Amuah (U.S. Patent No. 6,615,253 B1).

**R garding claim 2:** Crawford discloses the invention substantially as claimed. Crawford teaches the data storage and retrieval system of claim 1, wherein the hosting environment includes a first network that provides access to the data from a remote computing device (*column 17, lines 39-48*), a second network that enables interface connectivity between the hosting environment and the remote computing device (*fig. 4, item 82, and 50(W1); column 16, lines 51-52*), a third network that manages and maintains the data at the hosting environment (*fig. 4, item 104; column 49, lines 25-39*). However, Crawford is silent on a fourth network that controls the operation of the different networks in the hosting environment.

In the same field of endeavor, Bowman-Amuah teaches "*a full featured Directory Service that organizes, categorizes, and names networked resources in order to provide a comprehensive picture of clients, servers, users, applications, and other networks resources. The service includes a databases that that manages relationships between users and networks, network devices, network applications and information on the networks*" [see Bowman-Amuah; *column 63, lines 10-19*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Bowman-Amuah's teachings of the fourth controlling network with the teachings of Crawford, for the purpose of improving the ability of a network "*...to allow on-line services to execute host base software and permit device drivers to automatically manage I/O requests to replica server and host virtual devices a though they were locally attached*" as stated by Crawford in lines 20-23 of column 8.

**Regarding claims 3 and 21:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claims 2 and 20 respectively, wherein the first network includes one or more terminal servers that provides access to the data stored at the hosting environment from a remote computing device [see *Crawford*; *fig. 4, item 160; column 17, lines 39-44*]. By this rationale **claims 3 and 21** are rejected.

**Regarding claims 4 and 22:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claims 3 and 21 respectively, wherein the terminal servers include a virtual desktop application that enables a remote computing device to access a virtual computing environment at the hosting environment and retrieve the data stored thereat [see *Crawford*; *column 15, lines 12-21*]. By this rationale **claims 4 and 22** are rejected.

**Regarding claim 5:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 4, wherein the terminal servers further include a virtual server application that provides a communications interface amongst the networks in the hosting environment [see *Crawford*; *column 17, lines 42-62*]. By this rationale **claim 5** is rejected.

**Regarding claims 6 and 12:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claims 3 and 9 respectively, wherein the first network is accessible via a virtual private network [see *Bowman-Amuah*; *column 88, lines 5-33*]. By this rationale **claims 6 and 12** are rejected.

**Regarding claims 7:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 3, wherein the first network is accessible directly via the Internet [see Bowman-Amuah; *column 249, lines 27-35*]. By this rationale **claim 7** is rejected.

**Regarding claim 8:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 2, wherein the second network includes one or more front-end servers for communicating with the remote computing device [see Bowman-Amuah; *column 61, lines 15-22; note that a second server s added to the LAN disclosed by Crawford*]. By this rationale **claim 8** is rejected.

**Regarding claims 9 and 24:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claims 2 and 21 respectively, wherein the third network includes one or more file servers for storing the data at the hosting environment [see Crawford; *column 4, lines 48-60*]. By this rationale **claims 9 and 24** are rejected.

**Regarding claim 10:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 9, wherein the third network further includes one or more mail servers for managing e-mail communication via the hosting environment [see Bowman-Amuah; *column 73, lines 17-49*]. By this rationale **claim 10** is rejected.



**Regarding claim 13:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 10, wherein the mail server enables a globally accessible, secure messaging environment that can be accessed by the remote computing device [see Bowman-Amuah; *column 73, lines 60-67*]. By this rationale **claim 13** is rejected.

**Regarding claim 14:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 2, wherein the fourth network includes one or more intranet servers that manages the remote accesses to the data stored at the hosting environment [see Bowman-Amuah; *column 55, lines 51-67*]. By this rationale **claim 14** is rejected.

**Regarding claim 17:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 1, wherein the computing device includes a web browser application for accessing the data stored at the hosting environment [see Bowman-Amuah; *column 107, lines 24-38*]. By this rationale **claim 17** is rejected.

**Regarding claim 18:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 1, wherein the data is synchronized between the computing device and the hosting environment [see Bowman-Amuah; *column 121, lines 20-24*]]. By this rationale **claim 18** is rejected.

**Regarding claim 19:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 18, wherein the synchronization of the data occurs automatically. 21. The data storage and retrieval system of claim 20, wherein the hosting environment includes one or more terminal servers that provides access to the data stored at the hosting environment from a remote computing device [see Bowman-Amuah; *column 233, lines 20-25*]. By this rationale **claim 19** is rejected.

**Regarding claim 26:** The combination Crawford - Bowman-Amuah discloses the data storage and retrieval system of claim 20, wherein the computing device is a personal computer [see Crawford; *fig. 1, item 50; column 15, lines 64-67*]. By this rationale **claim 26** is rejected.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford (U.S. Patent No. 5,901,228) in view of Sharma et al (U.S. Patent No. 6,766,165 B2).

**Regarding claim 16:** Crawford discloses the invention substantially as claimed. Crawford teaches the data storage and retrieval system of claim 1, but fail to disclose the computing device as a personal data assistant (PDA) device.

In the same field of endeavor, Sharma et al teach “ *mobile wireless capable devices connected to a network that include a personal digital Assistant (PDA)*” [see Sharma; *fig. 1, item 108; column 6, lines 28-38*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Sharma's teachings of the

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PDA device with the teachings of Crawford, for the purpose of improving the ability of a network "...to provide an on-line service an associated equipment to solve the existing problems with executing host based software on a remote system.. " as stated by Crawford in lines 1-4 of column 8.

10. Claims 11, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford (U.S. Patent No. 5,901,228) and Bowman-Amuah (U.S. Patent No. 6,615,253 B1), in view of Willis, Jr. et al (U.S. Patent No. 6,738,815 B1).

**Regarding claims 11 and 25:** The combination Crawford - Bowman-Amuah discloses the invention substantially as claimed. It teaches the data storage and retrieval system of claims 9 and 24 respectively, but fail to disclose a system wherein the file servers are clustered.

In the same field of endeavor, Willis, Jr. et al teach " a NTFS file server couples to the remote messaging API server and is shared among a cluster of three protocol servers for optimal utilization [see Willis, Jr.; column 11, lines 19-37].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Willis, Jr.'s teachings of the clustered servers with the teachings of Crawford and Bowman-Amuah, for the purpose of improving the ability of a network "...to ease shared access to a common database or network , or customers to move information from computer to another ... " as stated by Crawford in lines 56-60 of column 8.

11. Claim 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowman-Amuah (U.S. Patent No. 6,615,253 B1) in view of Sharma et al (U.S. Patent No. 6,766,165 B2).

**Regarding claim 27:** Bowman-Amuah discloses the invention substantially as claimed. Bowman-Amuah teaches the data storage and retrieval system of claim 20, but is silent on the computing device being a personal data assistant (PDA) device.

In the same field of endeavor, Sharma et al teach “ *mobile wireless capable devices connected to a network that include a personal digital Assistant (PDA)*” [see Sharma; fig. 1, item 108; *column 6, lines 28-38*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Sharma’s teachings of the PDA device with the teachings of Bowman-Amuah, for the purpose of improving the ability of a network “...*to provide less complex, faster interactions between clients and servers..*” as stated by Bowman-Amuah in lines 17-18 of column 2.

12. Claims 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Midgley et al (U.S. Patent No. 6,625,623 B1) in view of Crawford (U.S. Patent No. 5,901,228).

**Regarding claim 28:** Midgley et al disclose the invention substantially as claimed. It teaches a data storage and retrieval method, comprising the steps of:

comparing each document on a computing device that is intended to be synchronized with the documents presently stored at a hosting environment to

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determine whether any of the documents stored on the remote computing device need to be replicated at the hosting environment (*column 12, lines 64-67; column 13, lines 10-16*);

if a document on the computing device that is intended to be synchronized is not also stored at the hosting environment, replicating the document at the hosting environment such that the same version of the document exists on the computing device and at the hosting environment (*column 13, lines 10-16*);

if a document on the computing device that is intended to be synchronized is stored at the hosting environment, but the data in the document stored on the computing device is different from the data in the document stored at the hosting environment, and the document stored on the computing device contains a more recent version of the data, replicating the document at the hosting environment such that the same version of the document exists on the computing device and at the hosting environment *column 13, lines 52-64*);

if a document on the computing device that is intended to be synchronized is stored at the hosting environment, but the data in the document stored at the hosting environment is different from the data in the document stored on the computing device, and the document stored at the hosting environment contains a more recent version of the data, replicating the document on the computing device such that the same version of the document exists on the computing device and at the hosting environment (*column 13, lines 11-27*);

if a document on the computing device that is intended to be synchronized is not stored at the hosting environment, replicating the document at the hosting environment such that the same version of the document exists on the computing device and at the hosting environment; (*column 13, lines 52-64*);

if a document at the hosting environment no longer exists on the computing device, deleting the document from the hosting environment;

Midgley et al further teach synchronizing the documents between the computing device and the hosting environment (*column 13, lines 52-57*). However Midgley et al fail to disclose providing a virtual desktop interface for remotely accessing the documents stored at the hosting environment with the computing device by interacting with a virtual desktop workspace, whereby the documents can be remotely accessed regardless of whether the computing device includes an appropriate application for accessing the documents.

In the same field of endeavor, Crawford teaches " ...integrating a replica of the customer computer that loads the device drivers and runs applications software to establish a host session and access host virtual disk.. "[see *Crawford; column 17, lines 42-62*].

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Crawford's teachings of the virtual interface to access remote applications with the teachings of Midgley, for the purpose of improving the ability of a network "...to ease and reduce the demands on network resources ... " as stated by Midgley in lines 10-11 of column 6.

**Regarding claim 29:** The combination Midgley-Crawford discloses the method of claim 28, wherein the documents include any of data files or file folders containing one or more data files therein. [see Midgley; *column 13, lines 3-11*]. By this rationale **claim 29** is rejected.

**Regarding claim 30:** The combination Midgley-Crawford discloses the method of claim 28, wherein synchronization occurs automatically in accordance with a predetermined time schedule [see Midgley; *column 13, lines 52-55*]. By this rationale **claim 30** is rejected.

**Regarding claim 31:** The combination Midgley-Crawford discloses the method of claim 28, wherein the computing device includes any of a personal computer, a personal data assistant (PDA) device, and a cellular telephone [see Crawford; *fig. 1, item 50; column 15, lines 64-67*]. By this rationale **claim 31** is rejected.

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**Conclusion**

13. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3719.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


Jude Jean-Gilles

Patent Examiner

Art Unit 2143

JJG

December 27, 2004

  
JOHN FOLLANSBEE  
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